

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. - 10. (Canceled)

11. (New) A method of coating a monolithic support, comprising the steps of (a) locating a containment means on top of a monolithic support; (b) dosing a pre-determined quantity of a liquid component into the containment means, wherein the order of steps (a) and (b) is (a) then (b) or (b) then (a); and (c) initiating transfer of the liquid component into at least a portion of the monolithic support, and retaining substantially all of the quantity of the liquid component within the monolithic support.

12. (New) A method according to claim 11, wherein the step of initiating transfer of the liquid component comprises applying vacuum to the bottom of the monolithic support.

13. (New) A method according to claim 12, wherein the step of initiating transfer further comprises applying pressure to the liquid component held in the containment means.

14. (New) A method according to claim 13, wherein the monolithic support has cells and the step of applying pressure comprises applying a pulse of air flow to clear the cells of the monolithic support.

15. (New) A method according to claim 11, wherein the step of applying vacuum comprises applying vacuum non-uniformly.

16. (New) A method according to claim 11, wherein the step of applying vacuum comprises applying vacuum non-uniformly temporally.

17. (New) A method according to claim 11, wherein the step of applying vacuum comprises applying vacuum non-uniformly spatially.

18. (New) A method according to claim 11, wherein at least 99 wt% of the pre-determined quantity of the liquid component is retained within the monolithic support.

19. (New) A method according to claim 18, wherein at least 99.5 wt% of the pre-determined quantity of the liquid component is retained within the monolithic support.

20. (New) A method according to claim 11, wherein substantially all of the pre-determined quantity of the liquid component is retained within the monolithic support without recycle.

21. (New) A method according to claim 11 further comprising the step of capturing the remaining liquid component not retained within the monolithic support in a vacuum hood.

22. (New) A method of coating a monolithic support, comprising the steps of dosing a pre-determined quantity of a liquid component to the top of a monolithic support, wherein the liquid component is gel-like and does not flow until pressure or vacuum is applied and initiating transfer of the liquid component into at least a portion of the monolithic support by applying at least one of pressure to the liquid component or vacuum to the bottom of the monolithic support, and retaining substantially all of the quantity of the liquid component within the monolithic support.

23. (New) A method according to claim 11 further comprising the step of automatically moving the monolithic support to the containment means.

24. (New) A method according to claim 11 further comprising the step of using robotic handling to load and unload supports onto the containment means.

25. (New) A method according to claim 11, wherein the step of dosing comprises identifying the predetermined quantity of the liquid component based on the desired coating and the behavior of the liquid component with respect to the monolithic support.

26. (New) A method according to claim 11 further comprising the step of sealing the containment means to the monolithic support.

27. (New) A method according to claim 26, wherein the step of sealing is done with an inflatable seal and the method further comprises controlling the inflation and deflation of the seal.

28. (New) A method of coating a monolithic support, comprising the steps of (a) locating a containment means on top of a monolithic support; (b) dosing a pre-determined quantity of a liquid component into the containment means for partially coating the monolithic support, wherein the order of steps (a) and (b) is (a) then (b) or (b) then (a); (c) applying vacuum to the bottom of the monolithic support to draw the liquid component into a portion of

the monolithic support to form a partially-coated monolithic support; (d) turning the partially-coated support; (e) locating the containment means on the top of the monolithic support; (f) dosing a pre-determined quantity of the liquid component into the containment means for coating the remainder of the monolithic support, wherein the order of steps (e) and (f) is (e) then (f) or (f) then (e); and (g) applying vacuum to the bottom of the monolithic support to draw the liquid component into the remainder of the monolithic support to form a fully-coated monolithic support, and retaining substantially all of the quantity of the liquid component within the monolithic support.

29. (New) A method according to claim 11 further comprising the step of applying a coating having a differing composition and/or differing concentrations of components across the monolithic support.

30. (New) A method according to claim 29, wherein the step of applying a coating having a differing composition and/or differing concentrations of components comprises shaping the containment means to blank off an area of the support whereby coating is not carried to the area.

31. (New) A method according to claim 29, wherein the step of applying a coating having a differing composition and/or differing concentrations of components comprises dividing the containment means internally for separating different liquids for coating.

32. (New) A method according to claim 29, wherein the containment means comprises a base and the step of applying a coating having a differing composition and/or differing concentrations of components comprises providing the base with regions of differing permeability.

33. (New) A method according to claim 11, wherein the liquid component comprises a solution of catalytically active components.

34. (New) A method according to claim 11, wherein the liquid component comprises a washcoat slurry of catalytically active components.